(FILE 'HOME' ENTERED AT 20:11:09 ON 22 JAN 2009)

FILE 'MEDLINE, CAPLUS, EMBASE, JAPIO, BIOTECHNO' ENTERED AT 20:12:23 ON 22 JAN 2009

L1 502128 S (FUSION PROTEIN OR CHIMERA OR HYBRID)

L2 4563 S L1 AND (DNA BINDING DOMAIN)

L3 0 S L2 AND POLYMERASE DOMAIN

L4 876 S POLYMERASE DOMAIN

L5 0 S L2 AND L4

L6 457 S L2 AND POLYMERASE

L7 3 S L6 AND PROCESSIVITY

L8 2 DUP REM L7 (1 DUPLICATE REMOVED)

L9 37 S L2 AND ENDONUCLEASE

L10 24 DUP REM L9 (13 DUPLICATES REMOVED)

L11 22 S L2 AND NON-SPECIFIC

L12 10 DUP REM L11 (12 DUPLICATES REMOVED)

L13 7 S NON-SPECIFIC DNA BINDING DOMAIN

L14 3 DUP REM L13 (4 DUPLICATES REMOVED)

L15 4 S L2 AND PROCESSIVITY

L16 3 DUP REM L15 (1 DUPLICATE REMOVED)

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2004:353037 CAPLUS

DN 140:369911

TI Engineering DNA polymerase fusion with protein Sso7 DNA -binding domain for improved efficiency, processivity, and thermostability in PCR

IN Wang, Yan

PA MJ Bioworks Incorporated, USA

SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040081963	A1	20040429	US 2002-280139	20021023
	CA 2502335	A1	20040506	CA 2003-2502335	20031020
	WO 2004037979	A2	20040506	WO 2003-US32954	20031020
	WO 2004037979	A3	20050506		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003284265	A1	20040513	AU 2003-284265	20031020
	AU 2003284265	B2	20080828		
	CN 1720324	A	20060111	CN 2003-80105035	20031020
	JP 2006503580	T	20060202	JP 2004-546895	20031020
	EP 1660650	A2	20060531	EP 2003-776445	20031020
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	US 2002-280139	A	20021023		

WO 2003-US32954 W 20031020

AB This invention provides protein Sso7-polymerase conjugates that exhibit improved activity in a polymerase reaction. This invention provides methods for engineering DNA polymerase fusion proteins with DNA-binding domain for improved efficiency, processivity, and thermostability in PCR applications. The face residue position selected from the group consisting of a tryptophan residue at position 24, a valine residue at position 26, and a methionine residue at position 29 of protein Sso7d were mutated. The three mutant proteins, Sso7d(G)-.DELTA.Taq, Sso7d(V)-.DELTA.Taq, and Sso7d(E)-.DELTA.Taq, showed 2,5-4-fold improvement over the wild type fusion protein. The invention further provides the protein sequence of Sso7d from Sulfolobus solfataricus.

L8 ANSWER 2 OF 2 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN DUPLICATE 1

AN 1999382411 EMBASE

TI Cellular transcription factors recruit viral replication proteins to activate the Epstein-Barr virus origin of lytic DNA replication, oriLyt.

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SO EMBO Journal, (1 Nov 1999) Vol. 18, No. 21, pp. 6095-6105.
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CY United Kingdom

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FS 029 Clinical and Experimental Biochemistry
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

LA English

SL English

ED Entered STN: 2 Dec 1999
Last Updated on STN: 2 Dec 1999

AB DNA replication of Epstein-Barr virus (EBV) during the productive phase of the life cycle of this herpesvirus depends on the cis-acting element oriLyt. It consists of two essential domains, the upstream and the downstream component. Whereas the upstream component contains several DNA-binding motifs for the viral activator protein BZLF1, the downstream component is known to be the binding site of several cellular proteins. We identified cellular transcription factors that bind synergistically to a functionally relevant subsequence of the downstream component, the TD element. Two of these transcription factors, ZBP-89 and Sp1, stimulate replication as shown by protein fusions with the GAL4 ***DNA*** -

binding domain and a single GAL4 DNA-binding motif
inserted into the TD element. In protein binding assays, we observed an
interaction of Sp1 and ZBP-89 with the viral DNA polymerase and
its processivity factor. Our data indicate that cellular
transcriptional activators tether viral replication proteins to the
lytic
origin via direct protein-protein interactions to assemble the viral
replication complex at oriLyt.

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